Application Number 09/714,325 Amendment dated February 24, 2004 Reply to Office Action of November 5, 2003

In the Claims

Please amend the claims as follows:

AIT

1. (Currently Amended) A method of storing data in an address trace cache in the environment of branch prediction method using a trace cache comprising the steps of:

if a routine composed of <u>unrepeated</u> instructions is to be executed, storing an address corresponding to each instruction in the <u>address</u> trace cache according to an order of executed instructions; and

if a routine composed of repeated instructions is to be <u>repeatedly</u> executed, storing a routine start address, a routine end address, <u>a</u> current access times <u>iteration count</u> of the routine, and <u>a</u> total <u>access times</u> <u>number of iterations</u> of the routine;

providing the trace cache with a current iteration loop counter for counting the current iteration count when the routine of repeated instructions is executed and a total iteration loop counter for counting the total number of iterations of the routine of repeated instructions; and

addressing a start address which will be accessed subsequent to execution of the routine if the current iteration count and the total number of iterations are identical.

- 2. Canceled
- 3. Canceled
- 4. Canceled

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Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 1, 2A, 2B and 3, and include new sheets of drawings labeled Figures 7-9. The sheets that include Figures 1, 2A, 2B and 3 replace their respective original sheets of figures filed with the application. In Figures 1, 2A, 2B and 3, the legend "Prior Art" has been added. Figures 7-9 are new figures which should be added to the application in accordance with the Examiner's request.

Attachment: Replacement Sheets

Annotated Sheets Showing Changes